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09/729,900

12/05/2000

Michael Francis Garyantes

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09/28/2004

LUCENT TECHNOLOGIES INC.

DOCKET ADMINISTRATOR

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HOLMDEL, NJ 07733

EXAMINER

PERILLA, JASON M

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,900

Applicant(s)

GARYANTES ET AL.

Examiner

Jason M Perilla

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/5/00.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-14 are pending in the instant application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on December 5, 2000 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

4. The abstract of the disclosure is objected to because it does not correctly describe the embodiment of the invention. The abstract should be amended to have such corrected language as presented in the marked-up version of claim 1 below.

Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities:

The body of the specification contains numerous spelling errors. It is suggested by the Examiner that the Applicant checks the spelling of words in the specification and makes the appropriate correction of the misspelled words.

Appropriate correction is required.

Claim Objections

6. Claims 1-14 are objected to because of the following informalities:

Regarding claim 1, the claim is objected to as being nearly indefinite because one skilled in the art may confuse the limitations including a full multi-path component and a partial multi-path component. Further, the claim is objected to as not being supported by the specification due to the claimed de-spreading of only a single symbol by various complete and partial multi-paths although the specification clearly discloses the de-spreading of a plurality of symbols (fig. 3; S_{n-1} thru S_{n+1}) by the various complete and partial paths. To clearly embody the invention, it is suggested that the claim is amended as follows:

(Marked-up version of claim 1) A method of recovering transmitted symbols in ~~the~~ a receiver of a spread spectrum system, comprising: receiving a signal including multi-path components associated with a transmitted symbols; de-spreading successive separate portions of the received signal to provide a symbol estimate based on each multi-path component, wherein at least one complete multi-path component of the a transmitted symbol is contained in a separate portions, the de-spreading step further comprising determining at least one partial estimate of the at least one other transmitted symbol for the an at least one partial multi-path component ~~based on each part of the multi-path~~ contained in each the separate portion; and summing ~~said~~ the partial estimates of separate portions corresponding to a same transmitted symbol.

Regarding claim 2, in line 1, replace "each portion" with –each separate portion—for clarity of the claim language.

Regarding claim 3, in line 2, replace "multi-path" with –symbol—for clarity of the claim language.

Regarding claims 5 and 6, in line 2 of each claim, replace “successive portions” with –successive separate portions—for clarity of the claim language.

Regarding claims 7-9, in line 1 of each claim, replace “successive portions” with –successive separate portions—for clarity of the claim language.

Regarding claim 10, the claim is objected to as being nearly indefinite because one skilled in the art may confuse the limitations including a full multi-path component and a partial multi-path component. To clearly embody the invention, it is suggested that the claim is amended as follows:

(Marked-up version of claim 10) In a receiver of a spread spectrum communication system, circuitry for recovering transmitted symbols, comprising: sample circuitry, connected to input a received signal including multi-path components of at least one symbol, for sampling successive separate portions of the received signal; de-spreading circuitry, connected to receive the successive separate portions of the received signal and for outputting a symbol estimate, wherein at least one complete multi-path of the a transmitted symbol is contained in a separate portions; determining at least one partial estimate of the at least one other transmitted symbol for the an at least one partial multi-path component ~~based on each part of the multi-path~~ contained in each the separate portion; and summing circuitry for summing said the partial ~~estimateds~~ of separate portions corresponding to a same transmitted symbol to produce a full estimate.

Regarding claim 11, the limitation including “wherein at the end of” in line 2 should be amended with more definite language, and in line 2 of the claim, replace

"successive portions" with –successive separate portions—for clarity of the claim language.

Regarding claim 13, in line 2 of the claim, replace "successive portions" with –successive separate portions—for clarity of the claim language.

Appropriate correction is required.

Allowable Subject Matter

7. Allowable subject matter is indicated regarding claims 1-14.
8. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-14 are indicated to contain allowable subject matter because the prior art of record does not disclose or obviate the limitations of independent claims 1 or 10 **as presented in the proposed amended versions of the claims above**. Specifically, the prior art does not disclose or teach a finger of a rake receiver in a CMDA system wherein the finger processes the spreading code of a full symbol as well as any partial symbols in successive separate portions of the received signal sequence such that any partial symbol estimations are summed allowing the rake finger to be multiplexed among several received signal paths.

Conclusion

9. This application is in condition for allowance except for the following formal matters:

The claim objections above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter. It is requested by the Examiner that the Applicant call the Examiner if the claim objections are unclear or traversed by the Applicant for an expedited prosecution of the case.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art of record is cited to show the current state of the art with respect to rake receivers.

U.S. Pat. No. 5953366 to Naruse et al.

U.S. Pat. No. 5953382 to Asano et al.

U.S. Pat. No. 5974038 to Shou et al.

U.S. Pat. No. 6618431 to Lee.

U.S. Pat. No. 6122311 to Watanabe et al.

U.S. Pat. No. 5889815 to Iwakiri.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (571) 272-3055. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M. Perilla
September 26, 2004

jmp

A handwritten signature in black ink, appearing to read "Chieh M. Fan".

CHIEH M. FAN
PRIMARY EXAMINER